AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Please amend the paragraph beginning on p. 3, l. 6 as follows:

According to a first aspect, the present invention refers to a method for determining the roughness of the rolling surface of a tyre ~~as defined by the enclosed claim 1~~, including: providing, by means of a sensor device operatively associated with the tyre, a first signal representative of the motion of at least one point of the tyre during its rolling on the surface; processing the first signal for providing an output indicative of the roughness of the rolling surface of the tyre; and wherein the processing includes a frequency filtering of the first signal for extracting a second signal representative of motion components of the at least one point due to the deformations undergone by the tyre during the rolling. ~~Preferred forms of execution of such a method are defined in the attendant claims 2-16.~~ In accordance with a second aspect, the invention refers to a method for checking the behaviour of a vehicle ~~as described in claim 17 and, in its preferred form of execution, in claim 18~~, including: determining information relating to the roughness of a rolling surface of the tyre; and making available the information relating to the roughness to a vehicle control system.

Please amend the paragraph beginning on p. 3, l. 15 as follows:

In agreement with a third aspect, the invention refers to a system for determining the roughness of a tyre rolling surface ~~as defined by claim 19 and to its preferred form of execution described in the attendant claims 20-43~~, the system being operatively associable with the tyre and including: a sensor device operatively associated with the tyre for providing a first signal representative of the motion of at least one point of the tyre during the rolling of said tyre on a surface having a respective roughness; a processing stage of the first signal for generating an output indicative of the roughness of the tyre rolling surface; and wherein the processing stage is of such a type as to perform a frequency filtering of the first signal for extracting a second signal representative of components of motion of the at least one point due to deformations undergone by the tyre during rolling.

Please amend the paragraph beginning on p. 3, l. 20 as follows:

According to a fourth aspect, the present invention refers to a tyre ~~as defined in claim 44~~, including: a sensor device operatively associated with the tyre for providing a first signal representative of the motion of at least one point of the tyre during the rolling of the tyre on a surface having a respective roughness, said sensor device comprising a processing stage of the first signal for generating an output indicative of roughness of the tyre rolling surface; and wherein the processing stage is so as to perform a

frequency filtering of the first signal for extracting a second signal representative of motion components of the at least one point due to deformations undergone by the tyre during rolling. ~~Preferred forms of execution of the tyre are described in the attendant claims 45-50.~~ A wheel ~~as defined in claim 51~~ including a supporting rim and a tyre having the above-discussed features and associated with said supporting rim also forms a subject of the invention.